

Applicant: Steven D. Potter
For: LINEAR RELUCTANCE MOTOR

ABSTRACT OF DISCLOSURE

5

A linear reluctance motor including a stator with a set of spaced blades each
extending in the direction of the actuation axis, each blade including a plurality of
alternating low permeability and high permeability teeth. A shuttle also includes a set of
spaced blades each extending in the direction of the actuation axis interleaved with the
10 blades of the stator, each blade of the shuttle also including a plurality of alternating low
permeability and high permeability teeth. An active component is associated with either
the stator, the shuttle, or both. The active component is divided into at least N phases,
each phase including a set of blades, a flux return portion, and a coil wound to produce
flux through the sets of interleaved blades in a direction substantially transverse to the
15 actuation axis.